

Amendments to the claims: (this listing replaces all prior versions):

1. (cancelled).

2. (cancelled).

3. (cancelled).

4. (withdrawn) A method of enabling a user to create an instance in a formal language of the kind which has a strictly defined syntax, comprising

providing a graphically displayed list of entries which are expressed in natural language and which do not comply with said syntax,

permitting the user to point to an entry on said list, and

automatically generating said instance corresponding to the identified entry in the list in response to said pointing.

5. (withdrawn): A method of generating a table for aiding conversion of voiced utterances to control commands for use in controlling an operating system of a computer to achieve desired actions in an application program running under the operating system, said application program including menus and control buttons, said method comprising

automatically by computer parsing an application program to identify menu entries and control buttons, and

automatically by computer placing a table entry in said table for each menu entry and control button found in the application program, each table entry placed in said table containing one of said control commands corresponding to said menu entry or control button.

6. (currently amended): A voice user interface system for producing input to a computer, said computer having a display, said display having a pointer indicating a position on said display, and a program for execution on said computer, a state of said program comprising a configuration on said display, said configuration being associated with control of said program and having a graphical element, the system comprising

a voice recognizer for recognizing a voiced utterance and for providing corresponding signals as input to said computer, and

a converter for converting said voiced utterance into a command string including a command directing motion of said pointer relative to a graphical element of said configuration.

7. (previously presented): The system of claim 6 wherein said command string further comprises a command to said program.

8. (previously presented): A voice user interface system for recognizing a voiced utterance and producing corresponding input to a program for execution on a computer, comprising

a voice recognizer for recognizing a voiced utterance and for providing a corresponding signal as an input to said computer, and

a converter for converting said voiced utterance to an output string for delivery as input to said computer based on an evaluation of said voiced utterance and on a state of the subsystem comprising said voice recognizer and said converter.

9. (previously presented): A voice user interface system for recognizing a voiced utterance and producing corresponding input to a program for execution on a computer, comprising

a voice recognizer for recognizing a voiced utterance and for providing a corresponding signal as an input to said computer, and

a converter for converting said voiced utterance to an output string for delivery as input to said computer based on an evaluation of said voiced utterance and on a state of said program.

10. (previously presented): The system of claim 9 further comprising commands to said program having a format to carry associated text strings as arguments, further comprising means for converting a series of voiced utterances into commands with said associated text as output of said device.

11. (previously presented): The system of claim 9 wherein said program, when operated without said converter, offers to its user, menu selections that said user selects via keyboard input, and wherein said converter, when used to select the same menu selection based on a voiced utterance, produces a series of operating system events in response to said keyboard input.

12. (previously presented): The system of claim 9 wherein said operating system of said computer maintains an event queue, said converter delivering said output string to said event queue.

13. (previously presented): A system for enabling voiced utterances to be substituted for manipulation of a pointing device to control motion of a displayed location indicator on a computer display,

the indicator being moved by an operating system in a computer in response to control signals received from the pointing device, comprising

a voice recognizer for recognizing a voiced utterance, and

an interpreter functionally connected to said voice recognizer for converting a voiced utterance into control signals which will cause movement of the indicator in a desired direction aided by the operating system in the computer, said movement continuing unabated until stopped by an action of the user.

14. (currently amended) A voice user interface device comprising

means for converting a voiced utterance into a corresponding signal as an input to a computer or into an internal command to the interface device, the voiced utterance being belonging to a set of voiced utterances that the means for converting is configured to convert, the set being a subset of all possible voiced utterances, the internal command being a command to adjust the set of change to a different set the set of utterances that the means for converting is configured to convert voiced utterances, and

means for recognizing the voiced utterance as either one to be converted to said signal or as one to be converted to said internal command.

15. (previously presented) A voice user interface system for recognizing a voiced utterance and producing corresponding input to a program for execution on a computer, comprising

a voice recognizer for recognizing said voiced utterance,

a converter for converting said recognized voiced utterance to an output string of characters or commands for input to said computer,

a set of representations, one such representation for each voiced utterance recognized by said voice recognizer, said representations internal to said voice recognizer and said converter,

a set of output strings produced by said voice recognizer and said converter as input to said program, and

a mapping from a member of said set of internal representations to a member of said set of output strings, said mapping being multiple-to-one and being used by said converter.

16. (withdrawn) A method that is at least partially automated, comprising

assembling a table of entries, each of the entries including an utterable token, and program control information to be invoked in response to uttering of the token.

17. (withdrawn) The method of claim 16 wherein the tokens are arranged hierarchically in the table.

18. (withdrawn) The method of claim 16 wherein the tokens comprise names that are displayed in a user interface.

19. (withdrawn) The method of claim 18 wherein the names comprise menu items, button captions, or words.

20. (withdrawn) The method of claim 16 wherein the program control information comprises sequences of instructions corresponding to each of the tokens.

21. (withdrawn) The method of claim 20 wherein the sequences of instructions are command strings in the form of events to be entered into an event queue of an operating system.

22. (withdrawn) The method of claim 16 wherein the sequence of instructions corresponding to a given token is the sequence of instructions that is executed by the program when the corresponding token is invoked by the user via a user interface.

23. (withdrawn) The method of claim 16 wherein the assembling comprises automatically analyzing program instructions to identify tokens for inclusion in the table.

24. (withdrawn) The method of claim 17 wherein the analyzing comprises identifying user interface names that appear in the program instructions.

25. (withdrawn) The method of claim 16 wherein the assembling comprises

automatically analyzing the program instructions to identify program control information for inclusion in the table.

26. (withdrawn) The method of claim 25 wherein the analyzing comprises identifying command strings associated with the tokens.
27. (withdrawn) The method of claim 16 wherein the assembling comprises automatically analyzing text to identify individual words for inclusion in the table.
28. (withdrawn) The method of claim 16 wherein the assembling comprises recording a series of actions taken by a user in using a program.
29. (withdrawn) The method of claim 16 wherein the actions include pointer operations and keystrokes.
30. (withdrawn) A method that is at least partially automated, comprising assembling a table of entries, each of the entries including an utterable menu item or button caption that is displayable in a user interface, and command strings that correspond to the menu items and button captions, the command strings to be invoked in response to uttering of the items or captions.
31. (withdrawn) A stored digital data structure comprising a table of entries, each of the entries including an utterable token and program control information to be invoked in response to uttering of the token.
32. (withdrawn) A stored program comprising an instruction sequence, the execution of which assembles a table of entries each of the entries including an utterable token and program control information to be invoked in response to uttering of the token.
33. (withdrawn) A voice controlled device comprising a processor, and a stored instruction sequence, the execution of which by the processor assembles a table of entries, each of the entries including an utterable token and program control information to be invoked in response to uttering of the token.
34. (withdrawn) A voice control method comprising

executing a program having a user interface that displays invocable tokens associated by the program with respective instruction sequences in the program, and
in response to an utterance corresponding to a selected one of the tokens, executing one of the instruction sequences that differs from the instruction sequence associated by the program with the selected one of the tokens.

35. (currently amended): A method for use with a machine having a pointing device, a graphical user interface, and an application program, the method comprising:

the graphical user interface being controlled at least in part by a control signal that can be invoked in response to the pointing device;

the graphical user interface enabling a user to launch the application program; receiving a voiced utterance from a user; and
launching the application program in response to the received voiced utterance without invoking the control signal.

36. (previously presented): The method of claim 35 in which an operating system provides the graphical interface.

37. (previously presented): The method of claim 35 in which the graphical user interface is shown on a display.

38. (previously presented): The method of claim 35 in which the machine comprises a computer.

39. (previously presented): The method of claim 35 in which there are multiple application programs and also comprising:

the graphical user interface enabling a user to launch each of the application programs, and

launching at least one of the application programs in response to the received voiced utterance.

40. (previously presented) The method of claim 35 in which

there are multiple application programs, an operating system provides the graphical user interface, the graphical user interface is shown on a display, and the machine comprises a computer,

the graphical user interface enabling a user to launch each of the application programs, and

launching at least one of the application programs in response to the received voiced utterance.

41. (previously presented) A method for use with a machine having a pointing device, and a graphical user interface that includes a cursor and at least one other graphical item, the method comprising:

receiving a voiced utterance from a user; and

manipulating the one other graphical item in response to receiving the voiced utterance.

42. (previously presented) The method of claim 41 in which an operating system provides the graphical user interface.

43. (currently amended) The method of claim 41 in which the graphical user interface is shown on a display.

44. (previously presented) The method of claim 41 in which the machine comprises a computer.

45. (previously presented) The method of claim 41 in which there are multiple other graphical items, the method also comprising

manipulating at least one of the other graphical items based on the voiced utterance that is received.

46. (previously presented) The method of claim 45 in which the one other graphical item comprises a window.

47. (previously presented) The method of claim 46 in which manipulating the one other graphical item comprises performing a graphical operation on the window.

48. (previously presented) The method of claim 47 in which the graphical operation comprises closing the window.

49. (previously presented) The method of claim 47 in which the graphical operation comprises moving the window.

50. (previously presented) The method of claim 47 in which the graphical operation comprises zooming the window.

51. (previously presented) The method of claim 47 in which the graphical operation comprises moving the window toward the front or rear of a stack.

52. (currently amended) A method for use with a machine having a pointing device and an operating system providing a graphical user interface that includes a menu that may be invoked in response to the pointing device, the pointing device being capable of sending a control signal to the graphical user interface, the menu including selectable menu items associated with respective functions that may be performed, the method comprising:

receiving a first voiced utterance from a user; and

displaying the menu in response to receiving the first voiced utterance without invoking the control signal.

53. (previously presented) The method of claim 52 in which there are multiple menus that may be invoked in response to the pointing device, each of the menus including selectable menu items associated with respective functions that may be performed.

54. (previously presented) The method of claim 52 in which the graphical user interface is shown on a display.

55. (previously presented) The method of claim 52 in which the machine comprises a computer.

56. (previously presented) The method of claim 52 also including receiving a second voiced utterance from a user;
in response to receiving the second voiced utterance, performing a function associated with a menu item included on said displayed menu.

57. (previously presented) The method of claim 56, also comprising, in response to the second voiced utterance, modifying the appearance of the included menu item.

58. (previously presented) The device of claim 14 in which the set of voiced utterances the device is configured to convert is adjusted by adding an additional voiced utterance to the set.

59. (currently amended) A voice user interface device comprising means for converting a voiced utterance into a corresponding signal as an input to a computer,

means for converting a voiced utterance into a corresponding internal command to the voice user interface device to cause the voice user interface device to accept information about (a) which voiced utterances belong to the set of voiced utterances the device is capable of recognizing, the set of voiced utterances being a subset of all possible voiced utterances, and (b) the set of signals and internal commands that correspond to each member of the set of voiced utterances the voice user interface device is capable of recognizing; and

means for recognizing a voiced utterance as either one to be converted to a signal as an input to a computer or as one to be converted to an internal command.